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ABSTRACT

The control function of an organization includes the comparison of set management goals and performance. A trend has emerged in recent years to replace subjective judgments by objective measurements of performance in libraries. The credibility of statistical data, however, depends on accuracy used in gathering, logic applied in assemblage and analysis, and critical judgment used in appraising their significance. The cataloging department of a library has problems in collecting data, analyzing measurements, and checking performance against standards. Variables are outlined to clarify the unevenness of statistical output among cataloging departments in similar types of libraries, as well as among catalogers within the same library. Factors which need to be considered in the analysis and interpretation of original catalogers' quantitative output include: (1) managerial function--department organization and work hour requirements; (2) cataloging function--policy, materials, cooperative cataloging, personnel/size, clerical, and physical aspects; and (3) related assignments and tasks--professional, semiprofessional/clerical, and other uses of time. (Author/KP)

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# STATISTICAL MEASUREMENT AND CATALOGING:

## Variables Determining Quantitative Output

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ABSTRACT

The need for measurement in modern library management and the pitfalls associated with accepting figures at their face value are indicated. Variables to be used in the measurement of original cataloging are outlined in order to clarify the uneveness of quantitative output among catalog departments and individual catalogers.

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Need for measurement.[1]

The administrator needs to compare set management goals and the organization's performance for the control of an organization. He has to measure efficiency, costs, etc., relying upon facts numerically expressed, and therefore must collect data, analyze them, and arrive at the proper conclusions for policy decisions.

The analysis of figures is effected by identifying the factors contributing to variation in them and the amount of variation stemming from each one. Once the cause of variation is established, it can be taken into consideration for the decision making process.

A trend has been emerging to improve the quality of library management information, during the last few years, and to replace subjective judgments by objective measurements of performance. Measurement will give the assurance that the work is being executed in the best feasible way, that fact rather than judgment is the basis for control, and that priorities and problems are being placed into proper perspective.

Measurement's credibility.[2]

Statistics are more than just a collection of numerical statements, and should be approached with a critical mind. Data may look scientifically produced because they are presented in precise form, and as such, appear to be a statement of fact. They do not always carry credibility, since it is well known that people can be deceived by statistical manipulation.

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The meaningfulness of statistical data can be correlated to the accuracy used in their gathering, to the logic applied in their assemblage and analysis, and to the critical judgment used in the appraisal of their significance.

Measurements occupy a vital role in modern library management, therefore every effort should be made to avoid pitfalls in data collection and analysis.

One must identify the gage used in the measurement in order to avoid arriving at faulty conclusions and to avoid making the statistical measurement more detrimental than useful. This identification is important to make sure that similarities are being compared since incomparable data lead to nonsignificant results. Caution should be taken to not accept statistics ar their face value without attentive analysis and study of their limitations.

One, furthermore, in order to avoid an incomplete explanation in the process of analyzing statistics, must make sure that all important factors have been taken into account, and that conclusions have been drawn from the measurement of all, and not only from one of the factors involved in the bringing about of a particular result.

Development of a knowledge of scientific methods of gathering, analysis and comparaïson of data allows one to avoid the bias of personal convictions, and to be able to use a critical viewpoint toward the understanding of quantitative data. [3]

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Variables in measuring cataloging.

Every library department has problems of data collection and analysis of measurements, and in checking performance against standards. This holds true especially within the cataloging department where the interest of library management over the number of pieces handled by the department as a whole, and by each member of the staff, as a measure of performance and evaluation, becomes a daily concern of the cataloger.

There is a tendency to review printed or otherwise available statistical reports from other libraries, and compare them at face value.

Some variables are outlined below that may clarify the uneveness of statistical output among catalog departments of various libraries of the same type as well as catalogers within the same library. These variables apply only to original cataloging, leaving out the "cataloging" with exact copy (either from LC[4] or other available service). This in recent years, has not been performed by professionals, but has been left to nonprofessionals who, as "editors", work in the newly established "speed" cataloging departments. It is they who also perform the various tasks associated with adding new volumes and copies to titles already available in the library.

The variables given below are to be considered in the analysis and interpretation of an "original" cataloger's quantitative output, having in mind that the quality of work influenced by educational background and personal intellectual capacity, among other factors, is not easily translated into numbers.

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The variables are outlined as they relate to the managerial and cataloging functions, to related assignments and tasks, and to other use of time.

I. Managerial function.

A. Organization of the department.

1. Smooth work flow; or, continuous contact of a personal nature needed to move the load through.

2. Policies (general or specific) clearly stated as in a manual of procedures; or, vocally enunciated leading to misunderstandings and friction.

3. Liberal management which allows for independent decisions on the cataloger's part on matters of individual judgement; or, restrictive direction which curtails independence and delays decisions.

4. Department being in a regular process of development; or, going through some period of reorganization or changes.

B. Work hour requirements.

II. Cataloging function per se.

A. General cataloging policy.

1. "Desk"/local cataloging; or, strict correlation with LC (or other) rules/practice.

2. Understanding of the card catalog as a finding/location tool; or, as a bibliographical instrument.

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B. Materials.

1. Single; or, multivolume monographs/serials.
2. Serials with; or, without analytics.
3. Analyticals; or, nonanalytical volumes.
4. Complexity of descriptive cataloging.
   a. Single; or, plural authorship.
   b. Personal; or, corporate authorship.
   c. Series; or, nonseries.
   d. Verification of one; or, more series.
5. Subject cataloging and classification difficulty varies with the many fields of knowledge and the system of classification and the list of subject headings used.
6. Problem cataloging involving conflict, various ways of handling, new areas of knowledge, lesser known languages, nonRoman alphabets, etc.

C. Cooperative cataloging.

1. Copy availability (printed or visually displayed as on a computer terminal)
   a. LC (or other service) copy with classification for related material such as variant editions, translations, etc.
   b. LC (or other service) copy without classification (shared cataloging, law, etc.)
   c. Visually displayed sample with classification (as on OCLC computer terminal)
   d. Sample (NUC or visually displayed) without classification.
   e. Without copy.

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2. Acceptance; or, nonacceptance of cooperative libraries' work (as of OCLC member libraries, NUC samples, etc.)

3. Adherence; or, nonadherence to cooperative cataloging standards (as among the OCLC member libraries)

D. Personnel/size.

1. Size of department.

a. As directly related to the availability of subject and language specialists.

b. Number of catalogers and supportive staff.

2. Bulk of acquisitions leading to the possibility of concentration on publications in the same general subject or form category over some period of time rather than working with materials covering a wide range of unrelated topics or materials.[5]

E. Clerical aspects.

1. Performance of clerical tasks.

a. Typing cross references.

b. Typing series authority cards (for series used, not used in tracings, classed together)

c. Typing master cards for set reproduction.

d. Adding call numbers on packet, punched card, multiform, temporary shelf list, etc.

e. Preparing rush slips, instructions for processings, bindery, etc.

f. Erasing cards in the recataloging process.

2. General availability; or, nonavailability of clerical support for related tasks (pull books from stacks, etc.)

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3. Searching for

a. Unverified entries (personal/corporate) in printed catalogs, public card catalog.

b. Availability of publications in the library in public card catalogs.

F. Physical aspects.

1. Walking distance to

a. Public card catalogs.

b. Shelf list.

c. Central serial records.

d. Authority files.

e. Printed catalogs (LC, others)

f. Reference sources (biographical, dictionaries, etc.)

g. Subject headings lists (LC, others)

h. NST, ULS (others)

III. Related assignments and tasks.

A. Professional.

1. Revision of cataloging.

2. In service training, answering questions, etc.

3. Suggestions, problem solving, innovations, etc.

4. Preparation of rare material for inspection by Special Collections librarian.

5. Reading of essential literature (LC Information Bulletin, LC Cataloging Service, OCLC Newsletter, etc.)[6]

6. Acting for head cataloger.

7. Meetings (Catalog Department, Technical Services Division, Library staff or faculty)

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B. Semiprofessional/clerical.

1. Coding for computer terminal input.
2. Computer terminal input.
3. Revision of computer terminal input.
4. Training in the use of the computer terminal.
5. Revision of filing (authority files, card catalogs)
6. Preparation of error reports to be forwarded to computer centers (such as in the OCLC system)
7. Preparation of book carts to be forwarded to processing departments.
8. Miscellaneous.
   a. Answering telephone, taking messages, etc.
   b. Translations of letters and information in foreign languages for other library departments.
   c. Book searches within the department.
   d. Other.

IV. Other uses of time.

A. Attendance to conferences.

B. Travels.

C. Library visits.

D. Rest periods.

E. Vacations,

F. Other.

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Footnotes.

1.,2. Elaboration of these statements may be found in a variety of textbooks on statistics as applied to management.

3. I. S. Simpson, Basic Statistics for Librarians (London: C. Bingley, 1975) is a useful introduction to statistical techniques.

4. Abbreviations used throughout the article: LC for Library of Congress, OCLC for Ohio College Library Center, NST for New Serial Titles, and ULS for Union List of Serials.

5. See R. Stein, "A Systems Approach to Improved Efficiency in Cataloging," Library Resources & Technical Services, XVI (Fall 1972) 521-525.

6. When allowed by the library administration.